R. P. & A. KING.

BUCK-BOARD WAGON.

No. 185,756. Patented Dec. 26, 1876.

Fig. 3.

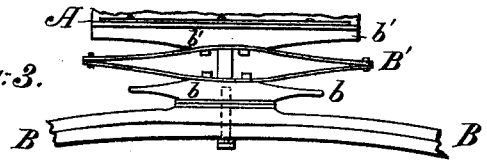


Fig. 1.

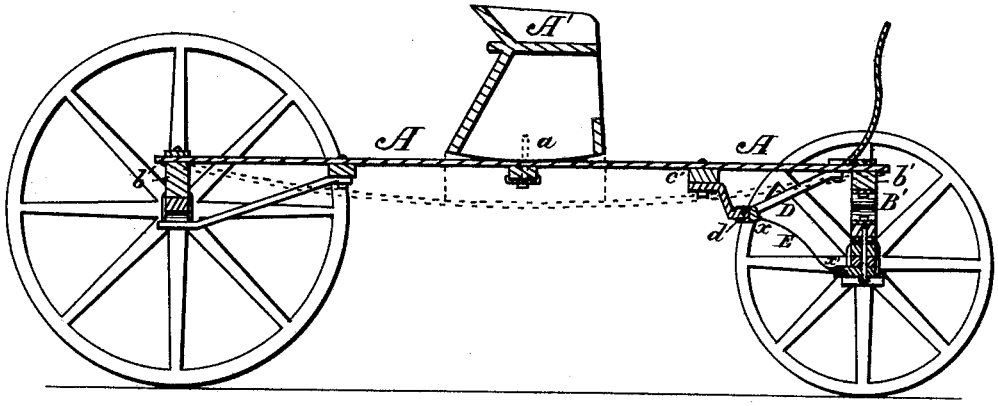


Fig. 4.

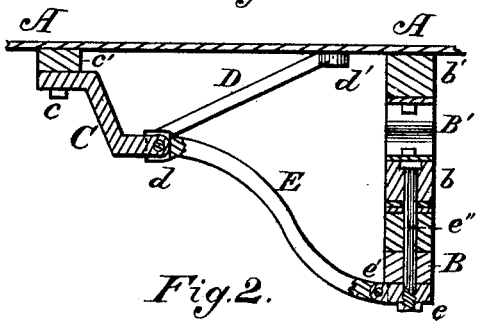
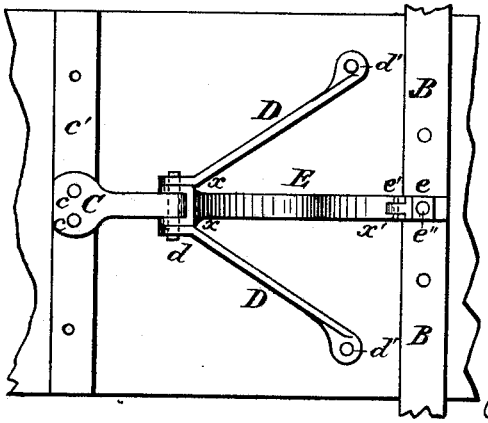


Fig. 2.



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UNITED STATES PATENT OFFICE.

ROBERT P. KING AND ANDREW KING, OF LOWVILLE, NEW YORK.

IMPROVEMENT IN BUCKBOARD-WAGONS.

Specification forming part of Letters Patent No. **185,756**, dated December 26, 1876; application filed November 4, 1876.

To all whom it may concern:

Be it known that we, ROBERT P. KING and ANDREW KING, of Lowville, in the county of Lewis, in the State of New York, have made certain Improvements in Buckboard-Wagons, of which the following is a specification:

Our invention consists in the construction of a yielding brace placed underneath and attached to the spring buckboard at one end, and the other end to the axle or other rigid part; also, in interposing a spring beneath the spring-buckboard and the axle of the wagon, as will be fully hereinafter described.

In the drawings, Figure 1 is a longitudinal sectional view of the wagon and our improvements. Fig. 2 is a broken section of the under side of the spring-buckboard, giving a view of the under side of the improvement. Fig. 3 is an upright view of part of the forward end of wagon, and Fig. 4 is an enlarged side view of the parts of our improvement.

A represents the usual spring-buckboard of a wagon, attached to the bolsters *b' b'* at each end in the usual manner. B represents the forward axle of the wagon, and as our improvement only has reference to the forward end of the wagon, all reference to the rear or hind part is omitted. B' is an elliptical or other spring interposed between the forward bolster and axle. *b* is a rocker between the spring and axle. C is an angular arm or bracket, firmly bolted or fastened to the transverse bar *c'* by bolts *c*, with its forward end of such construction as to allow two diverging braces, D D, that are bolted at their forward ends to the under side of the spring-buckboard, to be pivoted thereto by a bolt to form a yielding joint as the buckboard is bent down by its load to assume the curved line shown by dotted lines in Fig. 1. E is a jointed spring-brace, pivoted at its upper end firmly to arm or bracket C by bolt *d*, while its lower forward end is jointed at *e'* to clip *e* on the under side, or to the axle-tree B, which receives through it the king-bolt *e''* that holds the rocker *b*, spring B', and clip *e* to the axle B. Spring-brace E, from point *x* to point *x'*, is formed into a spring, or it may be of spring-steel of sufficient width and thickness to not break under its load, and yet be little or no hindrance to the springing down of the spring-buckboard A when loaded, and will greatly assist the buckboard in recovering from any sudden concussion, causing it to yield downward suddenly, and prevent rupture which might occur. This is effected by pivoting this spring-brace E to the under side of the spring-buckboard at about the center, between the forward bolster and the center of the seat, where the weight is applied, thus strengthening the buckboard, and giving ease and freedom to the buckboard and spring B' to act conjointly in their elasticity.

In Fig. 4, the brace E is shown as enlarged in its central part, and is rigid or unyielding, and answers the purpose very well, but we prefer the brace made as a spring, to connect the spring buckboard with the axle, or a rigid part attached to the axle.

We sometimes construct the brace E without any joint, as seen at *e'*, Fig. 2, but a joint at that point relieves much of the strain when the buckboard is loaded, and the wagon goes over obstacles, as the concussion is then great upon the brace, but the spring-buckboard, the jointed spring-brace, and a spring under the bolster, produce an easy riding, and, at the same time, a safe, wagon for light transportation. This construction of the device, composed of the bracket C, braces D, and spring-jointed brace *e*, also prevents any lateral or transverse strain upon the elliptic spring B, holding the parts in their relative positions at all times; and connecting the spring-buckboard to the axle, or other rigid part attached to the axle, by an intermediate spring or support, is of much utility in this construction of wagon.

By reference to Fig. 1 it will be seen that the bearing part of the seat A' upon the spring-buckboard is curved, so that when the buckboard is sprung down to the dotted lines it will fit the curvature of the top of the buckboard; hence, when the load is on the board the seat will be firm in its base, with no tendency to rock back and forward, and it is held firmly, in the center of its sides, to the buckboard by the bolts or other holding device *a*.

Having thus described our invention, what we claim, and wish to be secured by Letters Patent, is—

1. In a spring-buckboard wagon, the combination of the spring-buckboard A, the arm or bracket C, the pivoted spring-brace E, with the axle B, as and for the purposes described.

2. In a spring-buckboard wagon, the combination of the spring-buckboard A, arm C, and pivoted double jointed brace E, with the axle B, as and for the purposes described.

3. In a spring-buckboard wagon, the combination of the spring-buckboard A, arm C, brace E, and spring B, with the axle B, as and for the purposes described

4. In a spring-buckboard wagon, the combination of the spring-buckboard A with the spring-brace E, attached to the under side of the buck-board A at one end, and the other end attached to the axle B, or other rigid part that is attached to the axle, as and for the purposes described.

5. In a spring-buckboard wagon, the spring B′, interposed between the axle of the wagon and the end of the spring-board A, as and for the purposes described.

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ANDREW KING.

Witnesses:
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